

## **REMARKS**

In accordance with the foregoing, the specification and claims 2, 3, 9, 10 and 13 are amended. Claim 8 remains cancelled. Claims 4-7, 11, and 12 remain withdrawn following the restriction requirement. No new matter is added. Claims 1-3 and 9-18 are pending and under consideration.

Applicants acknowledge with appreciation the Examiner's positive attitude relative to the present application manifested by proposing an Examiner Amendment in October 2006.

### **CLAIM REJECTIONS UNDER 35 U.S.C. 112**

On page 2 of the outstanding Office Action, claims 2 and 3 are rejected under 35 U.S.C. §112 because the recitation "beam line gas output being connected to an unused beam line gas device" is not understood and considered vague. Paragraph [0013] specifically refers to a beam line gas device. Paragraph [0012] specifically refers to the Acelis GSD platform implanter. Attached are descriptions of several used Acelis implanters. Although the descriptions are very brief, several mention the beam line gas. It is submitted that beam line gas devices are well known in the art, especially as they relate to the Acelis implanters described in the specification. The exact terms need not be used in *haec verba* to satisfy the written description requirement of the first paragraph of 35 USC §112. *Eiselstein v. Frank*, 52 F 3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995). Claims 2 and 3 are amended herewith for clarification. In view of the amended claim language, Applicants respectfully request the rejection be withdrawn.

On page 3 of the outstanding Office Action, claims 1-3, 9 and 13-18 are rejected under 35 U.S.C. §112 due to the recitation "parameter output to selectively produce a parameter output." Applicants do not quite understand the rejection. Perhaps the Examiner believes that because a "parameter" is not literally being output, the word "parameter" should not be used. Applicants disagree. It is well established that Applicants can act as their own lexicographer. The term "parameter output" was used simply to show that the output is somehow associated with a parameter. If Applicants had instead named the output "a first output," certainly the Examiner would not expect for a "first" to be literally output from this unit. Perhaps Applicants do not understand the objection raised by the Examiner. If the Examiner can provide clarification and/or suggest alternate language, Applicants would be receptive. It should be noted that the language previously suggested by the Examiner created additional antecedent basis problems, which rendered the claims less clear than currently.

## CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-3, 9-10, and 13-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,111,042 to Sullivan et al. (hereinafter "Sullivan") in view of U.S. Patent No. 6,589,351 to Bruce et al. ("Bruce") and further in view of Granville-Phillips vacuum gauge controller manual ("GP Manual").

Claims 1-3, 9-10 and 13-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants admitted prior art (AAPA) in view of Sullivan and Bruce and further in view of GP Manual.

In the Office Action, it is alleged that Bruce and the GP Manual disclose the ion gauge controller. The Examiner indicates<sup>1</sup> the following portion of Bruce as disclosing that "the two ion gauges could be easily controlled by one ion gauge controller by switching them by using remote control inputs":

A dual-element ion gauge 55 provided with a manual shutoff valve 57 is preferably used to measure the vacuum pressure within the coating chamber 12. By using a gauge 55 with independently operable elements, either element can be selected for use without interrupting the coating operation. Alternatively, two ion gauges separated by a valve could be provided, so that either gauge could be used or switched without interrupting the coating operation.<sup>2</sup>

The indicated portion of Bruce discloses that the gauge 55 with "independent operable elements" can be switched manually "without interrupting the coating operation".

Further<sup>3</sup>, the Examiner concludes "Therefore switching ion gauges in order to use only one controller would have been obvious to one of ordinary skill in the art at the time of the invention." Applicants respectfully submit that Bruce does not support the above-cited conclusion. The limitation is not of a notorious character or capable of instant and unquestionable demonstration as being known. Instead, this limitation is unique to the present invention. See M.P.E.P. § 2144.03(A) ("the notice of facts beyond the record which may be taken by the Examiner must be "capable of such instant and unquestionable demonstration as to defy dispute"). There is no evidence supporting the conclusion. See M.P.E.P. § 2144.03(B) ("there must be some form of evidence in the record to support an assertion of common knowledge").

Bruce does not disclose either an ion gauge controller or the "remote control inputs" as

<sup>1</sup> See the Office Action mailed November 3, 2006, page 4, lines 8-9.

<sup>2</sup> See Bruce, col. 12, lines 47-55.

<sup>3</sup> See the Office Action mailed November 3, 2006, page 4, lines 10-11.

alleged in the Office Action. The switching circuit as recited in claim 1 includes the pair of control inputs, the control output, the output and the first and second delay circuits.

Bruce et al. does not suggest most of limitations for which it is cited. Of course, it is important an aspect that the ion gauges be controlled. However, perhaps it is more important how the ion gauges are controlled. The present invention uses an output and a control output to control the ion gauges. One potential benefit of using the claimed configuration is that it may enable an ion gauge to be added to an existing implanter as explained in the specification. Only the claimed connections may be required to add an ion gauge. As described in the specification, it may be possible to control the ion gauges (and route connections into and out of the sensitive environment) using an unused connection on the implanter. For example, as described on the specification, the beam line gas device may not be required for the ion implantation. The unused connection can be used for the additional ion gauge.

Bruce et al. does not disclose any of claimed connections. Furthermore, because Bruce et al. relates to a newly designed device, there would be no need to use the claimed ion gauge controller. There is no retrofitting mentioned or suggested in Bruce et al. Accordingly, Bruce would not use the claimed ion gauge controller because there is no need for it.

The response to Arguments provides no real rebuttal of the above previously-presented arguments. The Examiner merely states the "It is known that ion gauges need ion controllers and switching ion gauges in done through ion gauge controllers. Applicants respectfully submit that this response is inadequate and maintain that Bruce is improperly used in both grounds of rejecting the claims under 35 U.S.C. §103(a).

Further, the GP Manual is relied upon to disclose the delay circuits. The GP Manual discloses a delay in a switching protocol, but not a delay circuit and specifically, not the first and second delay circuits connected as recited in claim 1.

Even if *arguendo*, one would believe the GP Manual discloses the delay circuits (which Applicants respectfully maintain that it is not true), Sullivan, Bruce and the GP Manual still do not teach, suggest or make obvious the ion gauge controller having the structure recited in claim 1 including the pair of control inputs, the control output, the output and the first and second delay circuits, connected and functioning as recited in claim 1.

On page 5 of the outstanding Office Action, claim 9 is indicated as reciting a functional limitation directed to an intended use. In order to overcome this assertion, which apparently prevented evaluation of the claim on the merits, claim 9 is amended herewith to specify that "the first ion gauge is used for high resist outgassing implants at pressures higher than  $1 \times 10^{-4}$  Torr

and the second ion gauge is used for low resist outgassing implants at pressures higher than  $1 \times 10^{-4}$  Torr." The claim 9 amended language is fully supported by the originally filed specification, for example, paragraph [0046] therein.

During the informal communications in October 2006, the Examiner suggested the presently adopted language of claims 1 and 13 and requested permission to cancel claim 10. Applicants responded that they agree with the proposed amended claim language but did not give permission for canceling claim 10. It is therefore surprising that the outstanding Office Action does not present any support specifically directed to independent claim 10's rejection. Applicants respectfully submit that independent claim 10 patentably distinguishes over the cited prior art at least by reciting:

- a base unit having a plurality of interfaces comprising an input to receive an implant recipe and an output to control a recipe parameter which is not used in both a high resist outgassing implant and a low resist outgassing implant;
- an ion gauge controller provided in the base unit; and
- a switch to selectively connect either the first or second ion gauge to the ion gauge controller, the switch being activated by a trigger connected to the output of the base unit.

## CONCLUSION

Applicants respectfully request entry of this Rule 116 Response and Request for Reconsideration because it is believed that the amendment of claims puts this application into condition for allowance as suggested by the Examiner.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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